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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|---|
| 09/764,640 | 01/18/2001 | Glenn G. Amatucci | 1380-US | 8661 |
| 7590 | 05/17/2004 | | EXAMINER | |
| DOCKET ADMINISTRATOR | | | | TUGBANG, ANTHONY D |
| Lowenstein Sandler PC 65 Livingston Avenue Roseland, NJ 07068 | | | | ART UNIT 3729 |
| | | | | PAPER NUMBER DATE MAILED: 05/17/2004 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 09/764,640 | AMATUCCI, GLENN G. |
| Examiner | Art Unit | |
| A. Dexter Tugbang | 3729 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 April 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 9-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 9-14, 16, 17 is/are rejected.
7) Claim(s) 15 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/5/04 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. The rejections relied upon in the previous Office Action are maintained and hereby repeated below for the applicants convenience.
4. Claims 9-14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al 5,711,988 in view of Halliop 5,649,982.

Tsai discloses a method of making a supercapacitor comprising: laminating an activated carbon coated material to an electrically conductive positive current collector foil to produce a porous positive electrode subassembly 111A (in Fig. 3) and laminating an activated carbon coated material to an electrically conductive negative current collector foil to produce a porous negative electrode subassembly 111B (see col. 7, lines 13-20 and col. 12, lines 43-46); disposing a porous separator membrane 125, 127 between the carbon coated surfaces of the electrode subassemblies; heating the assembly under pressure to form a porous laminated assembly (see

col. 16, lines 37+); and contacting the porous laminated assembly with a non-aqueous electrolyte solution (see col. 17, lines 5-10). The electrode subassemblies 111A, 111B can either be said to be positive or negative, because each is charged with positive and negative collector foils (see col. 10, lines 16-28).

Regarding Claim 12, Tsai shows calendar rolling in Figure 10.

Regarding Claims 16 and 17, the porous metal grid of the collector foils can be made of either copper (see col. 5, line 55) or aluminum (see col. 3, lines 5-6).

Regarding Claims 9, 12, 13, 16 and 17, Tsai teaches substantially all of the limitations of the claimed manufacturing method except that Tsai appears to not mention that the carbon coated materials in both the positive and negative electrode subassemblies are each of a fabric, such that material can be said to be a “carbon fabric”.

Halliop teaches forming electrode subassemblies 18 (in Fig. 1) that includes carbon fibers (see col. 2, lines 27+) for the advantages of saving manufacturing time and costs of the supercapacitor (see col. 1, lines 40-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the carbon coated surface materials of Tsai by including the carbon fabric in each of the electrode subassemblies, as taught by Halliop, to advantageously save manufacturing time and costs.

With regards to Claims 10, 11 and 14, the temperature and pressure ranges and material of the separator membrane are all considered to be effective variables required for the manufacture of the supercapacitor and it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the specific recited temperature and

pressure ranges as well as the material of the separator membrane, since it has been held that discovering optimum values of result effective variables involve only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Furthermore, the specific recited temperature and pressure ranges and material of the separator membrane do not provide any manipulative difference in the manufacturing method as compared to the prior art above.

Response to Arguments

5. Applicant's arguments filed in the response on 4/5/04 with respect to claims 9-14, 16 and 17 have been fully considered, but have not been deemed to be found as persuasive.

In regards to the merits of Tsai and Halliop, the applicants continue to assert that neither teach an "activated carbon fabric".

The examiner most respectfully disagrees. The examiner maintains the vary reasons in the Advisory Action dated 1/16/04 as to why the prior art above satisfies the limitations of "activated carbon fabric". The examiner notes that the reason relied upon by the examiner, i.e. that the carbon fabric has a surface area necessary for lamination, is one of many reasons as to why the carbon fabric of the prior art above is considered to be "activated", particularly in light of the fact that the claims never make any distinction as to how the carbon fabric is actually "activated".

Additionally, the examiner has carefully considered the reference of e.g. Chemistry of Elements 274, as provided by the applicants in an attempt to clarify what is encompassed by an "activated carbon". However, the features of having "an enormous surface area" is not claimed, or is not recited in the rejected claims and it appears that the applicants are arguing more

specifically than that which is claimed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Allowable Subject Matter

6. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. This is a Continued Examination (RCE) of applicant's earlier Application No. 09/764,640. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

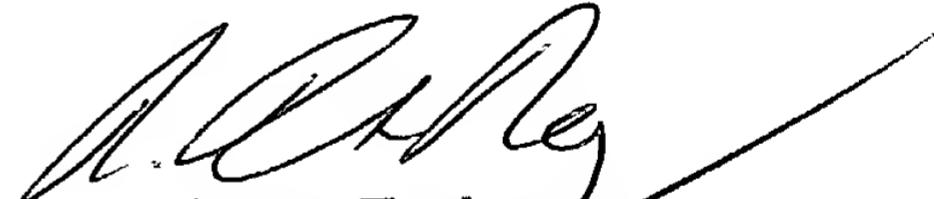
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however,

event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

May 14, 2004